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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,848	06/24/2003	Yoshinori Tanaka	1324.68109	9315

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EXAMINER	
PARKER, KENNETH	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/602,848	TANAKA ET AL.	
	Examiner	Art Unit	
	Kenneth A. Parker	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/31/05*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-15 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-15 and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-14 and 17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Satou 5930607.

Satou shows regarding claim 13 an active matrix type liquid crystal display comprising (figures 9, 10 and cover): a switching element formed for each of a plurality of pixels decided by a plurality of bus lines (shown in figure 9 in the sections labeled "R"); a short ring 180 connected to the plurality of bus lines 52,54; and an electrostatic protection element portion 140a,140b formed between each of the plurality of bus lines and the short ring; wherein the electrostatic protection element portion comprises a plurality of metal layers 900, 930 (as viewed from cover figure), an insulating layer 940b formed on the plurality of metal layers with a contact hole formed by opening the insulating layer on the plurality of metal layers, and a connecting layer 952 electrically connecting between the metal layers via the contact hole. The layers are all formed on the same layer, in that they are all one the substrate.

Satou shows regarding claim 14 an active matrix type liquid crystal display comprising: a switching element formed for each of a plurality of pixels decided by a plurality of bus lines (shown in figure 9 in the sections labeled "R"); a short ring 180 connected to the plurality of bus lines 52,54; and an electrostatic protection element portion 140a,140b formed between the adjacent bus lines (they are shown as located physically between the bus lines); wherein the electrostatic protection element portion comprises a plurality of metal layers 900, 930 (as viewed from cover figure), an insulating layer 940b formed on the plurality of metal layers with a contact hole formed by opening the insulating layer on the plurality of metal layers, and a connecting layer 952 electrically connecting between the metal layers via the contact hole. The layers are all formed on the same layer, in that they are all one the substrate.

Regarding 17, the claim is broader than 14 above, and is met in accordance with that discussion. The language "electrostatic protection element portion having a multi-layer structured metal layer in which a top layer is partially removed and an under layer is exposed', an insulating layer formed on the metal layer; a contact hole formed by opening the insulating layer on the metal layer; and a connecting layer electrically connecting the top layer and the under layer of the metal layer via the contact hole, respectively" is presumed to mean that the under layer is under something, not necessarily the top layer. This reading is consistant with the specification which does not show in any figure the claimed structure with the top and under layer superimposed. See figure 14a and 14c, which shows the structure with the elements as located next to each other, not one above the other.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou 5930607 as applied to claims above and further in view of Shiraki 5926234.

Satou shows an active matrix type liquid crystal display comprising (figures 9, 10 and cover): a switching element formed for each of a plurality of pixels decided by a plurality of bus lines (shown in figure 9 in the sections labeled "R"); a short ring 180 connected to the plurality of bus lines 52,54; and an electrostatic protection element portion 140a,140b formed between each of the plurality of bus lines and the short ring; wherein the electrostatic protection element portion comprises a plurality of metal layers 900, 930 (as viewed from cover figure), an insulating layer 940b formed on the plurality of metal layers with a contact hole formed by opening the insulating layer on the plurality of metal layers, and a connecting layer 952 electrically connecting between the metal layers via the contact hole. The layers are all formed on the same layer, in that they are all one the substrate. Shiraki discloses a modification of the type device of Satou (Shiraki figure 9), by adding elements between the bus lines individually and as a group (figure 10, described in column 14, lines 10-28, indicating that the embodiment

with the extra protective devices has the transistors "more surely protected". Therefore one of ordinary skill would have found motivation, reason and suggestion to modify the device of Satou to employ the protective elements also between each bus and each set of busses, so the transistors will be more surely protected. As the elements of Satou have the structure where there is a conductor connecting two layers below it through a contact hole in an insulator, the limitations of the dependent claim are then met by the combination. A note on the interpretation of "electrostatic protection element", the language is assumed to apply to any portion of the peripheral electrostatic routing electrodes, not just to the physical switching device or blow out device itself. This appears consistant with applicants use, in which the claimed structure appears to be routing the electricity between the switching elements (fig 14 a and c).

Response to Arguments

Applicant's arguments filed have been fully considered but they are not persuasive. The layers having a common layer below them is met as all of the layers share the substrate as a common layer below them. The connection structure claimed appears to be common- note the number of references above which as show the connection of a lower layer with a higher layer via a connection electrode above an insulator. A note about the interpretation of under layer- it just needs to be below something. Applicant's own under layer is not shown below the upper layer (see figure 4c and a).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5835177- slant wiring section has connection as claimed

6587160- connection as claimed figs 14 and 16

6734925, elements connected as claimed (see cover figure)

6683662, elements connected as claimed (see cover figure)

6710824 elements 85 and 82 connected between shorting bars(see cover figure)

6104449 figure 7 element 22

6043971 figure 5 element 13

5973658 figure 5 r2

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Parker whose telephone number is 571-272-2298. The examiner can normally be reached on M-F 10:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kenneth A Parker
Primary Examiner
Art Unit 2871